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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------|------------------|
| 10/713,140   | 11/13/2003  | Mamoru Tsuruya       | 31904-2                 | 9554             |
| 7590   | 06/07/2005  |                      |                         | EXAMINER         |
| Mitchell P. Brook, Esq.<br>LUCE, FORWARD, HAMILTON & SCRIPPS LLP<br>Suite 200<br>11988 El Camino Real<br>San Diego, CA 92130 |             |                      | MOTTOLA, STEVEN J       |                  |
|  |             |                      | ART UNIT                | PAPER NUMBER     |
|  |             |                      | 2817                    |                  |
|  |             |                      | DATE MAILED: 06/07/2005 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|------------------------------|------------------------|---------------------|--|
|                              | 10/713,140             | TSURUYA, MAMORU     |  |
| Examiner                     | Art Unit               |                     |  |
| Steven J. Mottola            | 2817                   |                     |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 29 April 2005.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 28-35 and 38-40 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 28-32 and 38 is/are rejected.

7)  Claim(s) 33-35, 39 and 40 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 111303.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_ .

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 28, 30-32 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Igarashi et al.

Refer to fig. 5 of Ingrashi et al. and col. 1, line 64 to col. 2, line 52 of their disclosure. A power supply with a noise reduction device is disclosed. Treating claim 28 first, a noise current detector 5 which may be read as the leaking current detection section claimed as it detects current induced in a secondary winding 5d that may be read as the output winding claimed passing through a magnetic core 5a through which the power lines (carrying current  $i_c$ ) pass. Compensation current supply circuit 6 may be read as the current supplying section that supplies a compensation current as claimed. The compensation current  $i_{c1}$  is injected on the ground line and appears to be derived from the detected leakage current. Regarding claims 30-31, since the transformer of Ingrashi et al. is described as a zero phase current transformer having a ring core (col. 1, lines 27-29) just as the applicant describes, it should meet the limitations of these claims. Regarding claim 32, transistors Tr1, Tr2 may be read as the amplifying circuit claimed and will have unity gain as the transistors are configured as emitter followers. Regarding claim 38, the overall device of Ingrashi et al. is a power converter that converts power from a source 1 into power with a predetermined voltage

(rectifier 2, inverter 3) to supply to a load 4, with the noise reduction circuitry described above.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ingrashi et al.

The difference added by this claim is the specific number of times the lines and winding pass through the core (one). However, it is submitted that it would have been obvious to pass the lines and winding through the core a minimum number of times because this is for noise detection and further passes would only increase the loss of having such a noise detecting transformer in line and the minimum number of times the lines and winding could pass through would be one.

Claims 33-35 and 39-40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the power conversion system with noise reduction circuit of Ikekame et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven J. Mottola whose telephone number is 571-272-1766. The examiner can normally be reached on M-Th from 8 to 5. The examiner can also be reached on alternate Fridays from 8 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal, can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven J. Mottola  
Primary Examiner